Differences between the LFS and the Census

The Census of Population and Housing and the Labour Force Survey (LFS) both measure information about the labour market activity of people aged 15 years and over. While both collections measure the same concepts surrounding the labour force in Australia, there are a number of differences between the two that should be considered when comparing the data, as estimates produced from these collections are not the same.

Census: Provides a five-yearly snapshot with socio-economic data at small area	**Labour Force Survey: Provides the official estimates of employment and unemployment**
The Census of Population and Housing is conducted every five years and aims to measure the number of people in Australia on Census Night, their key characteristics and the dwellings in which they live. The Census collects information about a range of characteristics, including, but not limited to, information about the labour force status of respondents. The Census is self-enumerated, respondents answer the questions on the form and the information on labour force status is collected from four questions.	The Labour Force Survey (LFS) provides Australia's official measure of employment and unemployment and is released on a monthly basis. The information is collected through a household sample survey conducted by trained interviewers either face-to-face or over the phone, and involves a detailed survey of around 70 questions.

While Census is a good source of information for small population groups and small areas, allowing for analysis of industry and occupation data at a more detailed level than the LFS, it is only produced on a five yearly basis, so is not an appropriate source for ongoing monitoring of labour market conditions. In contrast, the monthly Labour Force Survey provides labour force data that is timely and relevant. As the Labour Force Survey is specifically conducted about the Australian labour force, it is able to provide reliable estimates of the key labour force statistics for the whole of Australia, as well as each state and territory.

Differences between the Census and the LFS

Although the Census and the monthly Labour Force Survey both collect data on labour force status, they are not strictly comparable due to differences in the following:

- Scope and coverage
- Collection methodology
- Sampling error
- Treatment of non-response

Scope and coverage

The Labour Force Survey and Census differ in their scope, both geographically and in respect of their target population.

Although included as part of Australia, the Jervis Bay Territory, along with the Territory of Christmas Island and the Territory of Cocos (Keeling) Islands are currently regarded as out of scope for ABS collections except for the Census, population estimates, and Causes of Death. The Labour Force Survey therefore excludes these territories.

The scope of the Labour Force Survey is limited to the civilian population of Australia, therefore members of the permanent defence forces are excluded from the survey. In contrast, the Census includes everyone who is in Australia on Census Night, including the defence forces. This has the impact of increasing the number and proportion of employed people in the Census relative to the LFS.

The Labour Force Survey also includes residents who are temporarily overseas for less than 6 weeks, while the Census does not count anyone who is temporarily overseas on Census Night. While the Census aims to capture information about every person in Australia on Census Night, it is inevitable that in such a large operation some

people will be missed. On the basis of Post Enumeration Survey (PES), 2011, the Census net undercount rate was estimated at around 1.7%. Census data are not adjusted for this undercount. By contrast, as a sample survey, data from the Labour Force Survey is weighted to independent population benchmarks based on the Estimated Resident Population (ERP) (which has been adjusted for under enumeration in the 2006 Census). This means that Labour Force Survey estimates add up to an independently estimated distribution of the usually resident civilian population aged 15 years and over regardless of any sample lost due to non-responding households.

The ABS uses overseas arrivals and departures data to estimate the number of people overseas in calculating the estimated resident population of Australia (ERP), but no adjustment is made to the Census data based on these estimates.

Currently the LFS is benchmarked to ERP based on the 2006 Census base, and these data will not be revised to the 2011 Census base until some time after the final revision of the ERP to the 2011 Census base. The revised ERP are expected to be available in mid-2013.

Collection methodology

Users should also be mindful that different methodologies are used in the two collections. The Census is self-enumerated – that is, householders are required to complete the Census Form themselves. By contrast, the Labour Force Survey is conducted by trained ABS interviewers, either face-to-face or over the phone. Households selected for the Labour Force Survey are interviewed each month for eight months. While both methodologies can lead to error if a question is misunderstood, this is less likely to happen with the Labour Force Survey where the interviewer is able to clarify questions. The interviewer is also able to ask for additional information if answers provided are not sufficiently detailed, for example to enable coding of industry and occupation. Responses provided for the Census have to be interpreted from information provided on the form, with no opportunity for follow-up.

The Census determines labour force status from a combination of four questions, whereas in the LFS, labour force status is derived from around 70 questions. Many of the additional questions in the Labour Force Survey relate to the circumstances where a person may be defined as 'employed' even though they were not at work during the reference week, and additional questions to get a better measure of those unemployed at a point in time. The omission of these additional questions from the Census may result in some employed people being incorrectly categorised as either unemployed or not in the labour force, and some unemployed people being categorised as not in the labour force.

Sampling error

Estimates derived from the Labour Force Survey are based on information obtained from a sample of dwellings. Because the entire population is not sampled, the estimates are subject to sampling error. While the sample is designed to ensure that the sampling error is as low as possible at the national and state/territory level, it can be higher for labour force regions or for detailed population breakdowns. The Census, by contrast, is not subject to sampling error because it aims to collect information from everyone in Australia on Census Night.

Treatment of non-response

A further difference between the two collections lies in their treatment of non-response. In the Census, persons in non-responding households are imputed, along with some demographic characteristics. However, labour force characteristics of non-responding households are not imputed. Rather, the labour force status for persons in non-responding households is recorded as 'not stated', and the remaining labour force categories are recorded as 'not applicable'. In contrast, the Labour Force Survey does not include non-responding households because only fully responding households contribute to the estimates, with any under-enumeration in the survey being automatically compensated for by the weighting process. The labour force survey achieves a high response rate of close to 97%. The Census counts are not adjusted for under enumeration, so labour force figures produced from the Census may be lower than the LFS.

Comparison of 2011 Census and Labour Force August 2011 data

The table below provides a comparison of both the counts and the proportion in each labour force status category for the two data sources. While the differences discussed above need to be considered, in terms of proportions the data are similar. Note that while the total proportion of persons who were employed was very similar for the Census and the LFS, within this category of persons the Labour Force Survey does not have a category of 'employed, away from work'. Persons away from work are categorised as either employed full time or part time based on usual hours worked. The Census only uses actual hours worked (question 44) to determine whether someone is employed full-time or part-time and a response to question 34 to determine whether they were employed, but away from work.

Comparision of 2011 Census and Labour Force August 2011 data

	Census 2011	LFS Aug 2011 (a)

Labour Force Status	Number of persons	%	Number of persons	%
Employed, worked full-time	6,367,554	38.9	7,952,000	43.2
Employed, worked part-time	3,062,976	18.7	3,392,700	18.4
Employed, away from work	627,798	3.8	(b)	(b)
Employed Total	10,058,328	61.4	11,344,700	61.6
Unemployed, looking for full-time work	357,870	2.2	432,800	2.4
Unemployed, looking for part-time work	242,263	1.5	176,900	1.0
Unemployed Total	600,133	3.7	609,700	3.3
Labour Force	10,658,461	65.0	11,954,400	65.0
Not in the labour force	5,729,305	35.0	6,448,200	35.0
Total (c)	16,387,766	100.0	18,402,600	100.0

a. LFS Aug 2011 are original data, source Labour Force, Australia (cat. no. 6202.0)
b. In the LFS people employed but away from work are categorised as either employed full-time or part-time based on usual hours worked
c. The number of not stated to LFS06P in the Census (975,929) have been removed to enable better comparison with the LFS.